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COVERING PANELS, IN PARTICULAR FOR FLOORS, AND COVERINGFORMED BY SUCH PANELS

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The invention relates to a covering panel, particularly for floors, and a covering formed by such panels.

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The known coverings of this type, in the form of parquet, tiling or the equivalent, require either an attaching, for example by adhesive bonding, of the panels that constitute them to a laying surface that has already been carefully leveled, or a joining of each of the panels to one another by means of a tongue-and-groove system. These coverings make it possible to produce a laid floor that is homogeneous and perfectly horizontal, but they do not make it possible to correct flatness defects, resulting in creakiness and instability. Nor do they provide demountability or access to a precise location underneath the covering, for example to a system of fluid conduits or electrical cables installed under the covering, without destroying the latter.

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The object of the invention is to offer a covering panel and a covering that eliminate these drawbacks.

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To achieve this object, a covering panel according to the invention is characterized in that it comprises a plurality of tiles individually attached to a supporting plate having the dimensions of the panel and juxtaposed on the latter so that when aligned in the same plane, the adjacent tiles are in contact with one another along their edges and in that the supporting plate is made of a material that is flexible and elastically compressible in the direction of its thickness

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According to one characteristic of the invention, a tile as mentioned above comprises an upper covering plate, made of a material with low flexural strength, and a lower, rigid supporting plate made of a material with high flexural strength.

The covering according to the invention is characterized in that it is formed by the contiguous juxtaposition of covering panels according to the invention on a laying surface.

Brief Description of the Drawings

The invention will be better understood, and its other objects, characteristics, details and advantages will become clearer in the following explanatory description, written in reference to the attached schematic drawings, given only as an example illustrating just one embodiment of the invention and in which:

Fig. 1 is an exploded view, in perspective, of a covering panel according to the present invention.

Fig. 2 is a view in perspective of a covering panel according to the invention in the folded state.

Fig. 3 is a sectional view of a floor covering according to the invention, with one panel laid and another in the process of being laid.

Fig. 4 is a view similar to Fig. 2 that shows another embodiment of the panel according to this Fig. 2

Detailed Description of the Drawings

As seen in the figures, a covering panel 1 according to the invention has a multi-layered structure and comprises a plurality of tiles 2 that are individually attached, advantageously by adhesive bonding, to a plate 3 made of a flexible material, compressible in the direction of its thickness and having the same dimensions as the panel. The various tiles 2 are juxtaposed on the flexible supporting plate in such a way that, when aligned in the same horizontal plane, the adjacent tiles are advantageously in contact with one another along their edges 5. As a result of this contact of the tiles 2 with one another on the common flexible supporting plate 3, the panel 1 can constitute, in the horizontal state, an assembly that is rigid against the forces acting on its upper surface.

On the other hand, given that the tiles 2 are aligned by their edges, as seen in Figs. 1 and 2, the panel 1 can be folded under the effect of forces acting on its lower surface. Fig. 2 shows the plate 1 in the folded state obtained by folding the flexible plate along a fold line 7, which extends to the aligned sides or edges 5 of the tiles 2 juxtaposed in the direction of this line. In other words, the tiles 2 are articulated as a

result of the flexible plate 3, which thus constitutes a means of articulation.

Each tile 2 is composed of two superposed plates, a rigid upper covering plate 8, if necessary made of a material with low flexural strength, and a lower supporting plate 9 on which the covering plate 8 is attached, for example by adhesive bonding, and which is made of a material with high flexural strength. The various tiles 2 are attached to the flexible supporting plate 3 by their lower plate 9.

The upper covering plate 8 can be a plate of parquet, as in the example represented, formed by a certain number of parallel strips of parquet 10, or a plate of tile, stone, marble or the like.

The lower tile plates 9 are generally made of sheet metal or stainless steel, but could also be made of wood, wood composite or other rigid composite materials having high flexural strength. In essence, it is because of the rigidity and the strength of the plates 9 that the covering plates 8 are protected against flexural forces and thus against any risk of fracture.

The one-piece flexible supporting plate 3 is advantageously made of foam, cork or the equivalent. In addition to its function of supporting the tiles 2, because of its deformability in the direction of its thickness, and as a function of the latter, it makes it possible to correct flatness defects in the laying surface of the panels, indicated by 12. The plate 3 can also serve as a layer of acoustic or thermal insulation, depending on the choice of the material that constitutes it.

As illustrated in Fig. 3, a floor covering can be formed simply by juxtaposing panels 1 contiguously on the laying surface 12, i.e. the floor. Because of the flexibility of the panels, the surface does not need to be perfectly flat, given that the irregularities of the surface will be compensated by the compressible flexible plates 3 and by the ability of the panels to be deformed under the effect of forces acting from below, as a result of the articulated mounting of the tiles 2 on the plate 3.

Given that the panels 1 are simply juxtaposed on the floor 12 without mutual joining means such as tongue-and-groove means and without being fixed to the floor, they can be easily removed. Thus, the panels according to the invention make it possible to
5 access, for example, a system of electrical cables or fluid conduits installed in the floor or in a sub-floor structure.

Fig. 4 shows a variant of embodiment of a panel according to the invention. In this version, the covering is made in the form of a plurality of juxtaposed strips 14, if necessary made of a
10 flexible material, whose length is equal to the length of the edge of the panel 1 to which this strip is parallel. On the other hand, the rigid plate layer 9 is made as shown in Figs. 1 through 3. Consequently, several rigid plates 9 are juxtaposed underneath a strip 14 in the longitudinal direction of the latter. As
15 before, the plates 9 are laid on a plate 3 made of flexible material. Thus, the joining lines of two adjacent strips 14 constitute lines of articulation that allow the panel to be folded, as seen in Fig. 4.

It is clear from the description of the panels and the floor coverings that can be produced by juxtaposing such panels that the invention offers many advantages, such as an excellent
20 ability to adapt to laying surfaces, even irregular ones, an easy and fast installation of the panels, and the possibility of easy demounting. The covering according to the invention is compatible with other flexible coverings such as a carpet or a vinyl floor
25 covering with embossed tiles. In fact, the covering according to the invention is very easy to lay over these coverings. Generally, the demountable and therefore replaceable panels can be laid on any existing support such as concrete screed, tile
30 flooring, parquet, flooring covered with a carpet or plastic covering, technical flooring, batten flooring or the equivalent. In spite of its final rigid quality, the covering according to the invention, because of its articulation, adapts to any support
35 no matter what its degree of flatness, since the articulation of the tiles that compose it allows it to mold itself to the surface

